DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION
Interim Final 2/5/99
RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA750)
Migration of Contaminated Groundwater Under Control

Facility Name: **Jarrett Welding Company, Inc.**
Facility Address: **954 Goodyear Boulevard, Danville, VA 24541**
Facility EPA ID #: **VAR 000 016 055**

1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

☒ If yes - check here and continue with #2 below.

☐ If no - re-evaluate existing data, or

☐ If data are not available, skip to #8 and enter "IN" (more information needed) status code.

BACKGROUND

The Jarrett Welding Company is located at 954 Goodyear Boulevard, in Danville, Virginia. The site comprises approximately eight acres with roughly equal acreage located on either side of Goodyear Boulevard. Various metal products (e.g., machine safety guards, catwalks and ladders, fencing, customized metal parts, etc.) are manufactured at the metal products fabrication and machine shop. Processes at the facility include metal cutting, drilling, machining, metal forming, grinding, welding, and painting, etc.

The facility began operations in 1978 in the building identified as Shop No. 1 (west side of Goodyear Boulevard). Shop No. 1 houses the facility's offices, the machine shop, and the primary metal fabrication equipment. Prior to occupancy by Jarrett, the building on the western side of Goodyear Boulevard was used as an upholstery shop.

In the mid 1980s, Jarrett Welding Company expanded operations across Goodyear Boulevard to include Shop No. 2. Inside and outside this shop, the paint primer coating operations of steel beams and metal products was conducted. The facility also maintains two 250-gallon diesel fuel Aboveground Storage Tanks (ASTs) for trucks and equipment used on-site.

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

2. Is **groundwater** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

☒ If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

☐ If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

☐ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

Groundwater data for monitoring well MW-2 as presented in the Final RCRA Site Visit Report indicated benzene and MTBE concentrations in excess of appropriately protective levels (benzene MCL = 5 ug/l and MTBE tapwater RBC = 12 ug/l). The MCL for benzene and the tapwater RBC for MTBE was not exceeded in the downgradient monitoring wells. As of March 9, 2003, benzene and MTBE were not detected in the downgradient monitoring wells. Additionally, monitoring well MW-A is located upgradient of MW-2. Groundwater data for MW-A as presented in a Release Investigation Report indicated benzene and MTBE concentrations in excess of appropriately protective levels as well.

Further site evaluation and groundwater analytical data indicated that MW-2 was installed within the vicinity of a former UST location. The former UST had been removed and a pollution complaint number (PC#2003-7069) issued by the VDEQ Blue Ridge Regional Office (formerly the South Central Regional Office) on May 19, 2003 directing the facility to complete a release investigation. Based on the results of the release investigation, a letter had been issued to the facility, dated September 29, 2003, stating that no further investigation or corrective action was warranted. However, based on the available site data and information, some confirmatory sampling under RCRA Corrective Action may be warranted. (see # 7.)

No other groundwater impacts are currently known at the site. One SWMU, the Waste Paint Disposal Area (SWMU #2), was identified in 2000 as an un-permitted land disposal unit in violation of the Virginia Hazardous Waste Management Regulations (VHWMR). Data from compliance soil samples and downgradient groundwater compliance monitoring wells demonstrated achievement of the closure performance standards. The VDEQ concurred with the facility that the Jarrett Welding Company had demonstrated achievement of "clean closure" of SWMU #2. A closure verification site inspection was performed by VDEQ staff on February 14, 2005 for the Waste Paint Disposal Unit.

The remaining SWMUs were determined to have no evidence of a spill or release based on the site visit or in the files reviewed at the VDEQ or USEPA Region III offices. In addition, site representatives were unaware of any spills or releases from this unit and had no information regarding any spills or releases in their files.

References:

1. Final RCRA Site Visit Report by Tetra Tech EC, Inc., February 18, 2009
2. Release Investigation Report by WEL, Inc., September 5, 2003
3. EPA Risk Based Screening Levels as of May 19, 2009
4. Clean Closure Report, December 14, 2004

Footnotes:

[1]"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

☐ If yes - continue after identifying potentially affected surface water bodies.

☒ If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

☐ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be "**currently acceptable**" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented[4])?

☐ If yes - continue after either:
1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater;
OR
2) providing or referencing an interim-assessment[5], appropriate to the potential for impact that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

☐ If no - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

☐ If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):

[4] Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

[5] The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

☒ YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Jarrett Welding Company EPA ID # VAR 000 016 055, located at 954 Goodyear Boulevard Danville, VA 24541. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

☐ NO - Unacceptable migration of contaminated groundwater is observed or expected.

☐ IN - More information is needed to make a determination.

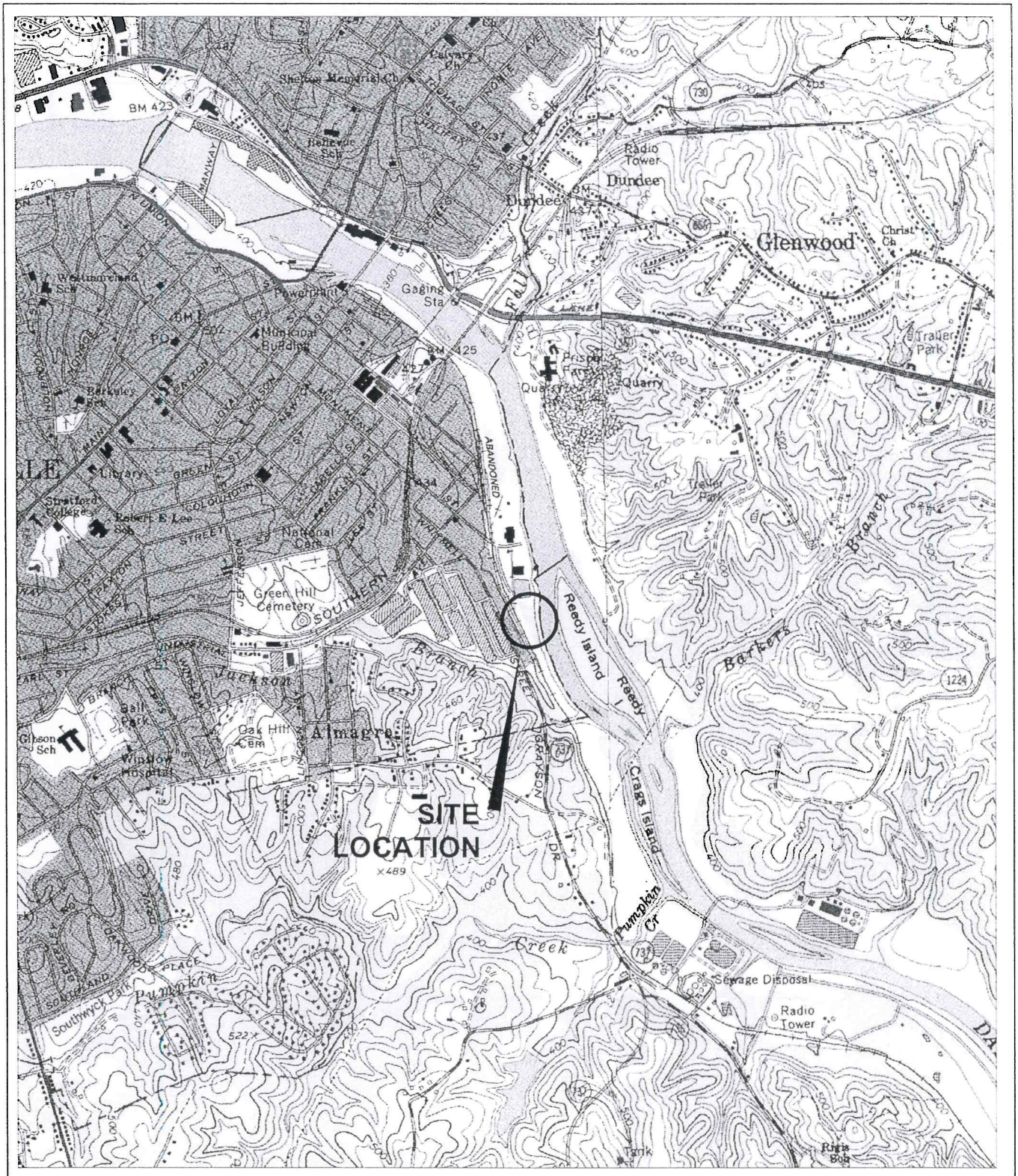
Completed by (signature) Brett Fisher Date 9/24/09
(print) Brett Fisher, P.G.
(title) Environmental Specialist II

Supervisor (signature) Jutta Schneider Date 9/24/09
(print) Jutta Schneider
(title) Groundwater Team Leader, ORP
Virginia DEQ

Locations where References may be found:

Virginia Department of Environmental Quality
629 East Main Street
Richmond, VA 23219

Contact telephone and e-mail numbers
(name) Brett Fisher
(phone #) 804-698-4219
(e-mail) brett.fisher@deq.virginia.gov



VIRGINIA
Quadrangle Location Map

0 2000 4000 Feet

SOURCE: U.S.G.S. TOPOGRAPHIC MAP (7.5 Minute)
DANVILLE AND RINGGOLD, VIRGINIA

United States Environmental Protection Agency

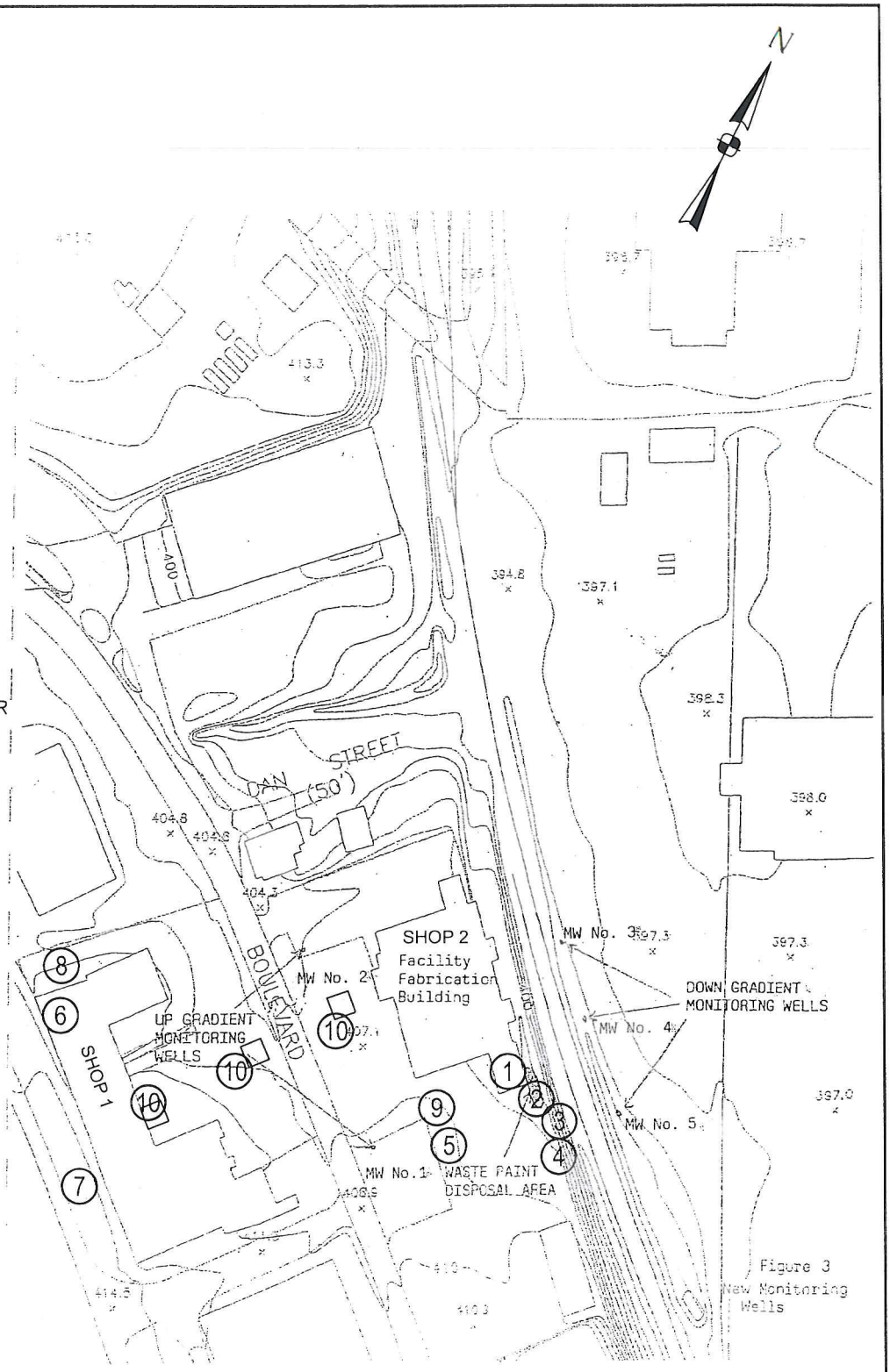
JARRETT WELDING COMPANY
Danville, Virginia

FIGURE 1
SITE LOCATION MAP

TETRA TECH EC, INC.

SWMUs

1. SHOP NO. 2 PAINT BOOTH
2. FORMER SHOP NO. 2 WASTE PAINT LAND DISPOSAL UNIT
3. SHOP NO. 2, EMPTY PAINT SOLVENT PAILS
4. SHOP NO. 2, DRIED PRIMER AND DEBRIS
5. SHOP NO. 2, 55-GAL. DRUM OF WASTE SOLVENT
6. SHOP NO. 1, PARTS WASHER
7. SHOP NO. 1, PESTICIDE STORAGE AREA
8. COOLANT TANK FOR GRINDER MACHINE
9. SCRAP IRON DUMPSTER
10. FORMER USTs



LEGEND:

1. SOLID WASTE MANAGEMENT UNIT LOCATION (SWMU)

NOT TO SCALE

United States Environmental Protection Agency

JARRETT WELDING COMPANY
Danville, Virginia

FIGURE 2
SITE LAYOUT MAP

TETRA TECH EC, INC.